Appendix B

Domestic Well Sampling Work Risk Assessment

Job Risk Assessment (WRA-02-2)

Document Control No.: *WRA-02-2*	**Date Assessment Completed:** 8/28/2009	**Location:** Yerington Mine Site
Job Name: Domestic Well Sampling	**Job Description:** Collect water sample from pre-existing domestic wells in project area by sampling from outside hose tap located near the well head. No pumping or water quality equipment is required.	**Risk Assessment Leader:** Penny Bassett **Risk Assessment Team:** Royanne Barringer, Briana Wright **SIMOPS:** ☐ Yes ☑ No **Designated PIC:**

Work Plan (List Job Steps) List the jobs required to complete the project scope in the sequence they are carried out.	Any tools or heavy equipment needed? If YES, What Type	Is this a SIMOP? If YES, Include in Mitigation Plan.	Do any of the *Golden Rules of Safety* apply? If YES, Which of the 8?	Which of the 8 energy or biological root sources could possibly be involved in this job?	**What** would be the result of exposure to a biological or energy source? (e.g., Bites, Slips, trips falls, exposures, electrocution, injury, death, etc.); and **How, where, or when** could an uncontrolled release or unwanted contact with a biological or energy source occur? **Note:** Humans are biological sources, and their physical abilities, competency, and training should also be considered here.	Environmental Impacts Could there be a release to the air, soil or water, and or, will a waste be generated? If YES, What?	Pre-Mitigation Risk Evaluation Frequency	Consequence	Likelihood	Risk Score	Permit(s) Required? If YES, What kind?	Energy / Biological / Waste Management Plan List control measures required to eliminate, control, or protect against unwanted contact with an uncontrolled biological or energy source to minimize the risk of injury or environmental Impact. **Hierarchy of Controls:** Elimination, Substitution, Isolation, Engineering/ Administrative, PPE	Who is responsible for Hazard Mitigation? Name or Title	Post-Mitigation Risk Evaluation Frequency	Consequence	Likelihood	Risk Score
A. Load sampling supplies and drive to sampling location - Sample bottles - Cooler - Paperwork (COC, labels)	**Yes** Work truck	**No**	**Yes** Driving Safety	Motion Gravity	**Motion**… Walking trip/slip hazards. Driving hazard on public roads include potential collision or loss of control. Trip distance is short and at neighborhood speed so the hazard is less significant. Unsecured loads in pickup truck bed can shift and cause property damage or fly out of moving vehicle. **Gravity**… Liifting heavy items may cause back or other injury. Access in/out of truck be by climbing on tailgate could result in fall, sprain.	**No**	Frequent Exposure	Serious Consequence	Unusual but possible	**Substantial Risk**	**No**	**Motion**… Maintain good housekeeping in supplies storage and loading area, remove tripping hazards. Ensure items are securely stored to prevent movement during transport. **Gravity**… Use safe lifting techniques and get help for heavy/awkward lifts. Workers should use 3-point contact when getting in/out of truck bed and organize supplies to minimize need to enter.	Sample Technician	Frequent Exposure	Important Consequence	Remotely possible	**Minimal Risk**
B. Notify homeowner of intent to sample - Call in advance - Knock on door	**No**	**No**	**No**	Biological	**Biological**… Aggressive dogs could attack or bite. Homeowner could be resistant to visitors on the property.	**No**	Occasional Exposure	Serious Consequence	Conceivable but unlikely	**Minimal Risk**	**No**	**Biological**… Call homeowner in advance to schedule a time for the sampling, ask if they have dogs and ask them to be restrained during the visit. Do not enter property without prior approval from homeowner.	Sample Technician	Occasional Exposure	Notable Consequence	Conceivable but unlikely	**Minimal Risk**
C. Turn on tap, purge water (~20 gallons), fill sample containers	**No**	**No**	**No**	Chemical Biological Motion	**Chemical**… Contact with nitric acid preservative in sample bottle could cause 1st or 2nd degree burn to skin or eye. **Biological**… Tap sample location may be in area where spiders, bees, snakes, livestock could be present. **Motion**… Turning handles on well spigots located in tight spaces might present a threat to hands or fingers especially if the handles are initially difficult to start rotating.	**No**	Occasional Exposure	Serious Consequence	Unusual but possible	**Low Risk**	**No**	**Chemical**… Nitrile gloves and safety glasses should be worn when handling open or unopened bottles. Bottles should be stored and transported to keep them in an upright position. **Biological**… Inspect sample location and find alternate tap location if there is an identified hazard. Ask homeowner to restrain or move animals or livestock. **Motion**… Wear leather or nitrile gloves to protect hands if tap is in a hard to reach location or other hazards nearby (i.e. insects)	Sample Technician	Occasional Exposure	Important Consequence	Remotely possible	**Minimal Risk**
D. Pack and ship samples	**No**	**No**	**No**	Motion Gravity	**Motion**… Potential for back strain from awkward body position leaning over coolers while packing. **Gravity**… Large coolers can weigh >70 pounds if fully packed resulting in heavy awkward lift and possible back injury.	**No**	Occasional Exposure	Important Consequence	Unusual but possible	**Low Risk**	**No**	**Motion**… Place coolers at waist height on a work table rather than on ground, this will provide more comfortable body position. **Gravity**… Use rolling table or hand cart to carry packed coolers from packing area to truck to keep heavy load at one level and avoid need to lift. Limit number of samples in a cooler to <50 lbs, request smaller coolers from lab if necessary.	Sample Technician	Occasional Exposure	Important Consequence	Remotely possible	**Minimal Risk**